

# National Institute of General Medical Sciences (NIGMS)

## Workforce Plan: FY 2002-2003

### 1. What skills are currently vital to the accomplishment of the agency's goals and objectives?

- **Goal (Intramural):** Address the national shortage of clinical and basic research pharmacologists – the experts needed to improve drug design, selection, and dosage.

**Skills Needed:** Individuals with a Ph.D. degree in pharmacology or a related science, M.D., or other professional degree.

- **Goal (Extramural):** Effectively and efficiently administer research and research training programs in areas of greatest opportunity and promise in the basic biomedical sciences, leading to new advances in the understanding, prevention, and treatment of diseases.

**Skills Needed:** Individuals with a Ph.D. or M.D. in biomedical fields, especially in the areas of physics, biophysics, chemistry, engineering, statistics, computer science, and mathematics in order to promote quantitative, interdisciplinary approaches to problems of biomedical significance.

- **Goal (Extramural):** Provide sound fiscal stewardship of grants that fund research and research training in the basic biomedical sciences.

**Skills Needed:** Individuals with strong negotiation, technical, analytical, and financial skills, in order to handle the business and funding management of highly specialized and exceedingly complex research and cooperative agreements.

- **Goal (Extramural):** Promote understanding and support of basic research, as well as communicate the NIGMS mission, programs, activities, initiatives, and accomplishments to the public and specific target audiences.

**Skills Needed:** Science and technical writers, as well as webmasters who can communicate highly complex information to a variety of lay audiences through a variety of electronic and other media.

- **Goal (Extramural):** Provide administrative and an IT infrastructure support to facilitate program realization and grants stewardship of the institute's research and research training efforts.

**Skills Needed:** Individuals with both working expertise and leadership skills in the following areas: financial management, human resources, administrative management, management analysis, and information technology. Skills in analysis and change management are particularly critical across all disciplines. For IT, staff with expertise in applications development, database technology, and the web are necessary.

- **Goal (Extramural):** Provide technical assistance in support of review, administration, and stewardship of research and research training grants in the basic biomedical sciences.

**Skills Needed:** Individuals who possess strong technical, organizational, analytical, and meeting planning skills.

## **2. What changes are expected in the work of the agency?**

### **Changes Expected**

- Center for Bioinformatics and Computational Biology (CBCB) – NIGMS recently established the CBCB to serve as the scientific “home” of centers, large collaborative projects, model organism databases, and research grants in those areas of investigator-initiated fundamental research where computation can be a powerful tool in pursuing research questions. Growth in this center is projected in future years.
- Community Consultation – NIGMS has recently been wrestling with issues surrounding the use of population-based samples in genetics research, as well as has sought advice on sensitive issues that are certain to arise from pharmacogenetic studies on identified populations, including minority populations. It is likely that ongoing interactions with the community will be necessary to address the concern that identified populations, or individual members of populations, could suffer from discrimination, stereotyping, stigmatization, and other social harm as a result of the gathering of genetic information.
- Electronic Research Administration will change the roles and responsibilities of scientific review and program administrators, grants administration staff, and program support staff. More specifically, grants administration will likely evolve into a role of providing technical assistance, as well as overall fiscal oversight and guidance to grant recipient institutions. Streamlined work processes in scientific review and program administration are likely to significantly change the numbers of staff needed in some areas and the skill sets of the positions remaining.
- The NIH Business System will have a major impact on current administrative business processes, such as travel, property, financial management, and procurement. Streamlined work processes are likely to change the numbers of staff needed in several areas and the skill sets of those positions remaining.

### **Skills no longer required**

- Routine tasks, such as filing, assembling and distributing hard copy materials, and data entry have been greatly reduced over the past few years, and will likely continue to decrease.

### **Affect on the agency’s human resources**

- It is likely that fewer support staff will be needed to perform the routine functions described above. Instead, NIGMS anticipates hiring employees (and retraining current workers) who can use new technologies and are open to continuous learning to upgrade their analytical and program support skills and acquire new ones.

### **Skills necessary in the next five years**

- See response to question #1 above. (These skills are currently essential to NIGMS’ mission and will likely continue to be necessary over the next five years).

## **3. Recruitment, Retention, and Training Strategies**

### **Recruitment**

- Title 42 209 f and g Authorities – NIGMS uses these to secure and retain the services of experienced and talented scientists to serve in program and review capacities. These authorities are critical to trying to offer competitive compensation.
- Federal Student Loan Repayment Program – NIGMS will offer student loan repayments to a number of employees and expects this to be an attractive recruitment incentive.
- Quality of Work Life Initiatives – NIGMS uses Alternative Work Schedules and the Flexiplace Programs. The NIH Transshare Program, a transportation subsidy, and other NIH workplace amenities (R&W, daycare, credit union, etc.) as recruitment tools.

- Outstanding Scholar Program – This program has enabled NIGMS to attract promising young talent into entry-level administrative professional occupations.
- Relocation Expenses – When overhead funds permit, NIGMS offers travel and transportation expenses as a recruitment incentive to prospective candidates.
- Recruitment Bonuses – When overhead funds permit, NIGMS offers recruitment bonuses to individuals to offset losses they may incur due to the Institute’s inability to match salaries offered in academia and industry or to help offset increased cost of living.
- Recruiting the Best and Brightest – NIGMS’ recruitment efforts include targeting new areas with an aim at encouraging underrepresented groups to pursue research careers and seek public service positions. The Institute also aims to attract and recruit highly talented individuals, with broad skill sets, who can replace retiring leaders.
- Career Development Programs – The NIH Management Intern Programs; the STRIDE Program; and the Management Cadre Program are all valuable “corporate” recruitment mechanisms. .

### **Retention**

- Title 42 209 f and g Authorities – NIGMS uses Title 42 to retain experienced scientific staff who exhibit and apply valuable knowledge, and who make significant contributions to the Institute’s programmatic efforts.
- IT Retention Allowance – NIGMS grants up to 10 percent retention allowance to those computer specialists on staff engaged in mission-critical efforts.
- Federal Student Loan Repayment Program – NIGMS will offer loan repayments as an incentive to keep talented employees in the Institute.
- Quality of Work Life Initiatives – NIGMS will continue to use both Alternative Work Schedules and the Flexiplace Program. The NIH Transhare Program, a transportation subsidy, and other NIH amenities are vital to retention as well.
- Collegial Environment – NIGMS promotes a culture of teamwork and collegiality, as well as empowers its employees to make decisions within their areas of expertise. In addition, staff who provide administrative services and infrastructure support continually aim to streamline processes and procedures in support of the Institute’s mission.

### **Training**

- NIGMS is a strong advocate of, and generously funds employee self-development training. This includes supporting employees seeking degrees, learning new skills, or attending scientific/professional conferences. The Institute also has a cross-line training program to provide short-term, on-the-job experiences to NIGMS employees outside of their normal work environment.

## **4. How is the agency addressing expected skill imbalances due to attrition, including retirements over the next five years?**

For some years, NIGMS has been reviewing its workforce needs and has begun to address planning both the numbers and skills/knowledges the Institute needs to accomplish its goals, and how to best organize the workforce. To adapt to program initiatives, electronic research administration, and other corporate initiatives, NIGMS has begun to do strategic hires and reorganizations. At times, this means adding staff in key parts of the organization where high numbers of retirements or high attrition are expected. At other times, this means using contract personnel or temporary staff in select areas. NIGMS plans to continue to use this information to create strategies for identifying and filling gaps. The Institute has also begun succession planning by attracting and retaining skilled and knowledgeable individuals whose performance meets or exceeds expectations, regardless of their age.

**5. What challenges impede the agency's ability to recruit and retain a high-quality, diverse workforce?**

The bureaucratic complexities and inflexibilities of the federal personnel system, and, at times, the Department's and NIH's implementation of federal personnel rules, are seriously compromising NIGMS' ability to recruit and retain staff to accomplish our mission. Most troubling are lengthy personnel processing times and woefully inadequate compensation, benefits, and severance options. A new personnel system is badly needed. NIGMS and NIH need to be part of a broad government effort to encourage underrepresented minorities to pursue both research careers and to seek public service positions. (Please also see the Administrative and Cultural Barriers described under Question 7).

**6. Where has the agency successfully delegated authority or restructured to reduce the number of layers that a programmatic action passes through before it reaches an authoritative decision point?**

**Example 1:** In the area of grants administration, NIGMS has expanded the delegation of Grants Management Officer authority so that senior level, certified (GS-13 and above) grants management specialists have been delegated the authority to commit federal funds for grant awards.

**Example 2:** During the past few years, use of the purchase card at NIH has greatly increased; it is anticipated that this growth in usage will continue in the future. NIGMS use of the purchase card has greatly reduced the time needed to procure products and services in support of the Institute's day-to-day program operations and overall mission.

**7. Where can the agency improve its processes to reduce the number of layers that a programmatic action passes through before it reaches an authoritative decision point?**

**Example 1:** By law, each NIH institute cannot make grant awards without its advisory council providing a second level of peer review. In practice, for over 98% of grants, this review is cursory, perhaps not justifying the substantial effort and resources devoted to it. This also delays making awards. Some streamlining of the advisory council process and changes to the legislative requirements regarding council are warranted.

**Example 2:** Streamlining the grant submission and administration processes while designing electronic research administration systems is likely to both simplify and expedite many parts of the core NIGMS/NIH business function.

**8. What barriers has the agency identified to achieving workforce restructuring?**

**Statutory and Administrative Barriers:** The antiquated personnel system and lack of agency personnel authority mean, for example, that severance packages, including early retirement offerings to meet anticipated workforce restructuring needs are not readily available. Hiring complexities and delays and compensation inadequacies make recruiting needed talent very difficult. Adequate overhead resources for personnel and training are problematic.

**Administrative and Cultural Barriers:** Federal employees take a lot of blame for what's wrong with government, but often times it is "the system" in which they work, not the workers themselves, that is the main problem. The system is so rigid, so rule-bound, so inflexible, and often overly centralized that employees themselves are frustrated. Employees at the program level are frequently not empowered to make the positive changes that would help achieve mission-critical goals. The federal workplace "culture" is a barrier to restructuring, as well as to recruitment.

5/25/01

# NIGMS Hiring Plans for FYs 2002/2003

	FY 2002	FY 2003	Total
<b>INTRAMURAL</b>			
Senior Investigators <sup>1</sup>	0		0
Investigators <sup>1</sup>	8	7	15
Other MD/PhDs, in FTE positions	3	3	6
Other MD/PhDs in non-FTE positions (IRTA, VF)			0
Other lab/clinical staff => GS-13			0
Other lab/clinical staff =< GS-12			0
Admin/support staff => GS-13			0
Admin/support staff =< GS-12			0
Infrastructure support => GS-13			0
Infrastructure support =< GS-12 <sup>2</sup>			0
Summer and other temps not listed above (include summer IRTAs)			0
<b>TOTAL INTRAMURAL</b>	<b>11</b>	<b>10</b>	<b>21</b>
<b>EXTRAMURAL</b>			
HSAs/SRAs and other senior level science administrators => GS-13	10	7	17
Other science administration positions =< GS-12			0
Grants Management and R&D Contract Staff => GS-13 <sup>3</sup>	3	1	4
Grants Management and R&D Contract Staff =< GS-12 <sup>3</sup>	7	7	14
Administrative and support staff => GS-13	5	1	6
Administrative and support staff =< GS-12	1	2	3
Infrastructure support => GS-13			0
Infrastructure support =< GS-12 <sup>2</sup>			0
Summer and other temps not listed above	6	7	13
<b>TOTAL EXTRAMURAL</b>	<b>32</b>	<b>25</b>	<b>57</b>
<b>IC TOTAL</b>	<b>43</b>	<b>35</b>	<b>78</b>
<sup>1</sup> Using OIR professional designations			
<sup>2</sup> Include all wage grade positions related to infrastructure in this group			
<sup>3</sup> Includes 1101, 1102, 301 and 303 series where individual is engaged in these activities on a full-time basis.			